 Interpreting Matrices Practice

1. **Grade**

1. How many students are in the 9th grade?
2. How many more boys than girls are in all three grades?
3. The school play had performances Friday, Saturday, and Sunday. Two types of tickets were sold: adult and student. On Friday they sold 45 adult tickets and 35 student tickets. On Saturday they sold 10 adult tickets and 30 student tickets. On Sunday they sold 53 adult tickets and 30 student tickets.
   1. Create a matrix showing this information.
   2. In order to cover costs, the school needs to sell 3 times as many tickets next year. Create a matrix showing how many tickets the school is expecting. What operation did you use?
4. The matrix below shows the length of time in minutes that Brittany spends doing homework and practicing the flute each day on a typical week.
5. How long does Brittany spend on homework during a typical week?
6. During school vacations, Brittany spends half as much time doing homework and practicing her flute as she does during the school week. Create a matrix of the time Brittany spends each day on homework and flute during a week of vacation.
7. A shoe store manager uses the following matrices to keep track of his stock at two branches of the store.

**Pittsville Store Louisburg Store**

1. Create a matrix that shows the total stock at both stores. What operation did you use to create this matrix?
2. Over the weekend there was a big sale on shoes. The matrix below shows the number of each item sold at both stores.

**Sales from Weekend**

If all sandals were sold for $25 a pair, how much was earned from sales of sandals over the weekend?

1. 1. A compact car has a 10-gallon gas tank. A mid-size car has a 14 gallon gas tank. An SUV has a 20 gallon gas tank. Create a *horizontal* matrix showing this information.
   2. Regular gas costs $1.70 per gallon. Premium gas costs $1.80 per gallon. Create a *vertical* matrix showing this information.
   3. Assuming all three cars run on regular gas, create a *horizontal* matrix showing how much it costs to fill each car with gas.
2. 1. During the Winter Olympics the US team received 13 bronze medals, 10 silver medals, and 24 gold medals. Canada received 8 bronze medals 15 silver medals, and 14 gold medals. Express this information in a matrix.
   2. What percent of the United State’s medals were bronze?
   3. What percent of all of the medals were gold?